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Vander FIELD NOTE Book

ACADEMY OF NATURAL
SCIENCES OF PHILADELPHIA

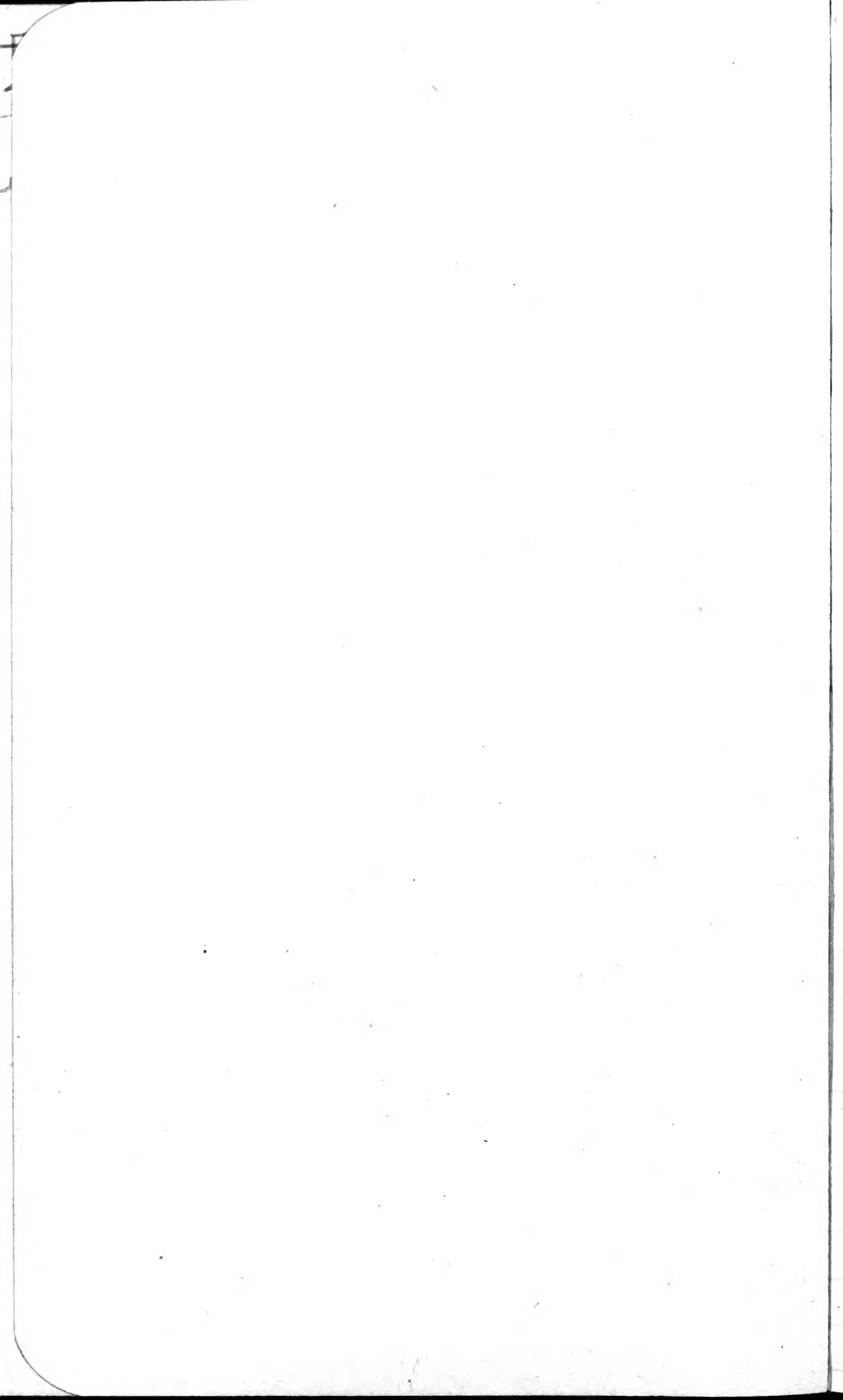
EXPEDITION TO AGATE,
NEBRASKA AND OTHER
FOSSILIFEROUS AREAS

1938

Finder please return
to

Edwin H. Colbert
Academy of Natural
Sciences
Nineteenth and the
Parkway
Philadelphia, Pa.
U. S. A.





Field Note Book

Academy of Natural
Sciences of Philadelphia

Expedition to Agate,
Nebraska, and other
fossiliferous areas,

1938.

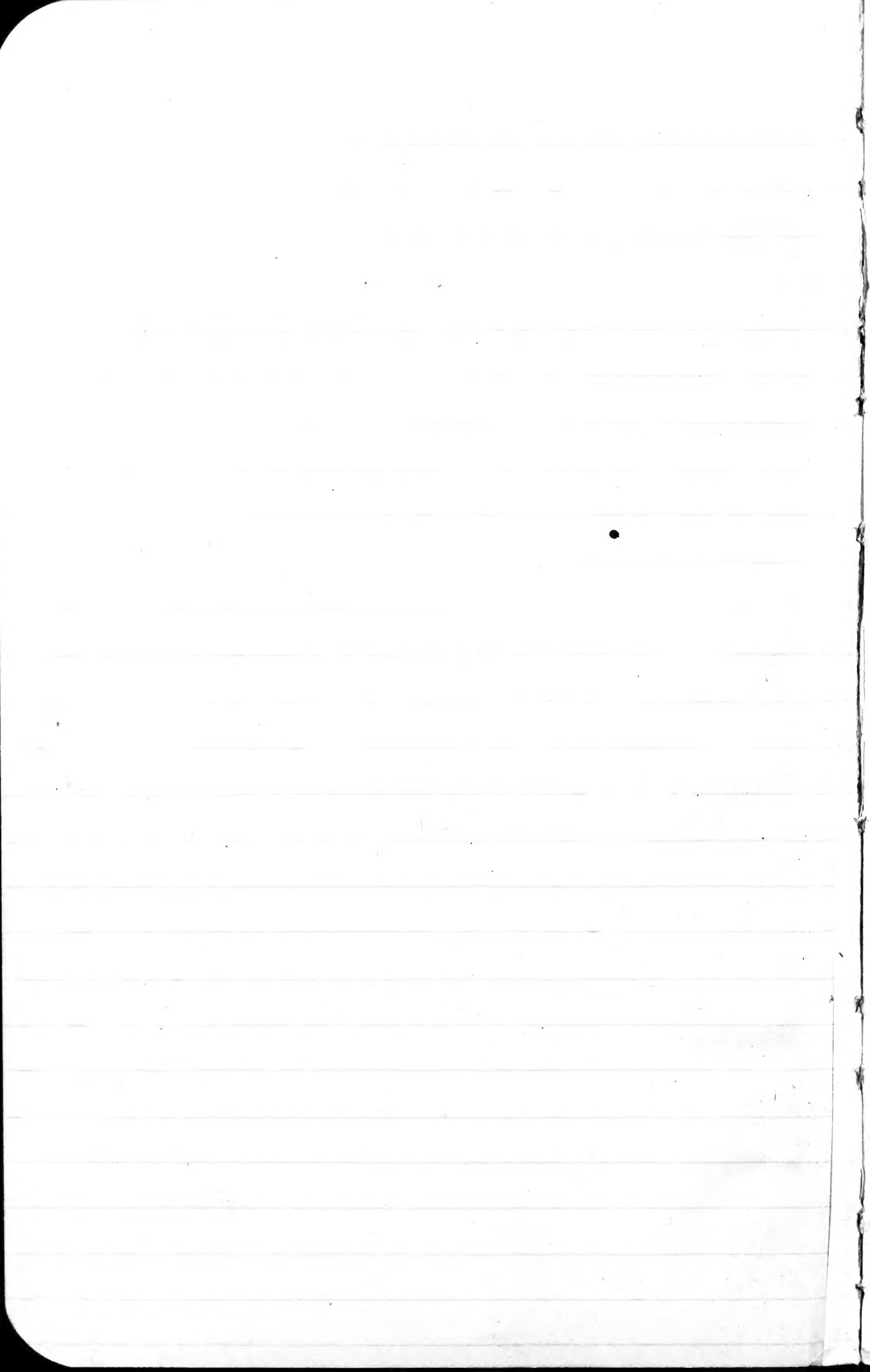
Members of Expedition

Edwin A. Colbert

Edgar B. Howard

Malcolm Lloyd, Jr.

Edward C. Page, Jr.



Diary and Notes.

Wednesday, July 6, 1938.

Left New York on the
"Manhattan Limited," Mr.

Lloyd and Edward Page
Boarded the train at
Pavli, Pa.

Thursday, July 7,

Arrived in Chicago at
12³⁰ P.M. Spent the afternoon
at the Field Museum,
where we saw Quinn and
Dr. Mr. Riggs and
Patterson were away.
Boarded the Union
Pacific "Stream Liner" at
6²⁰ P.M.

Evening of July 8th
visited the Scottsbluff
National Monument Museum
with Mr. Green of
Scottsbluff. A very
excellent small museum
with a good bone slab
from Agate.

Also went to the
top of the bluff.

Friday, July 8.

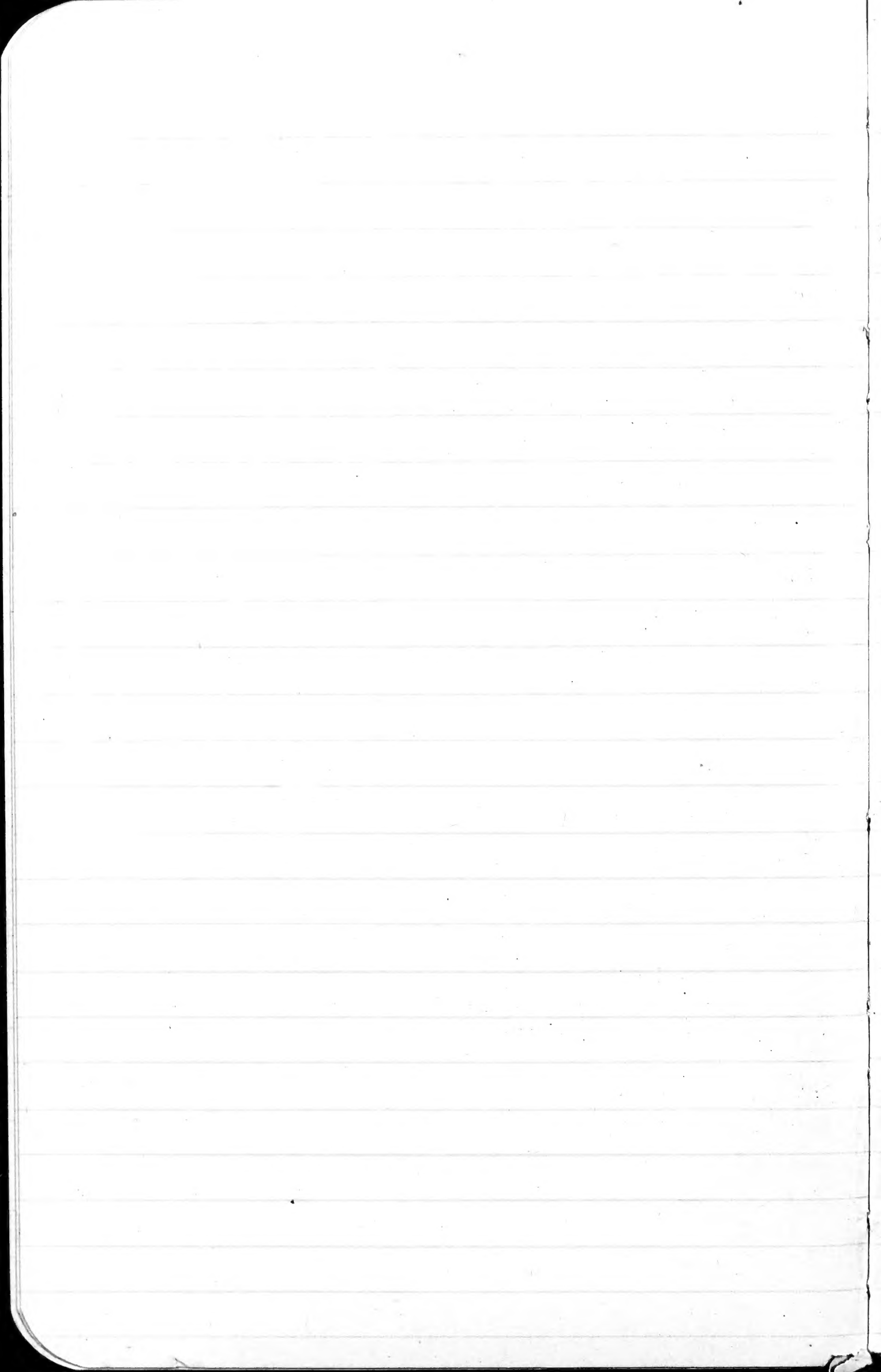
Arrived at North Platte
Nebraska at 5⁰⁸ A.M.
Boarded train for Cering
at 6⁰⁰ A.M., arriving in
Cering shortly after 11⁰⁰ A.M.

There met Dr. Howard,
Also Mr. M^c Caffee and
Mr. Dollinger of Scottsbluff.
Mr. M^c Caffee is closely
associated with Harold
Cook - Mr. Dollinger is
secretary of the Chamber of
Commerce.

In the afternoon we
went to Agate in
Dollinger's and Howard's car.
Harold Cook met at home
but we met Captain Cook.

Saturday, July 9.

Spent the day purchasing
provisions and equipment.



(July 10)

Rented a Chevrolet "pick-up" truck. Hired a cook, John House, of Scottsbluff.

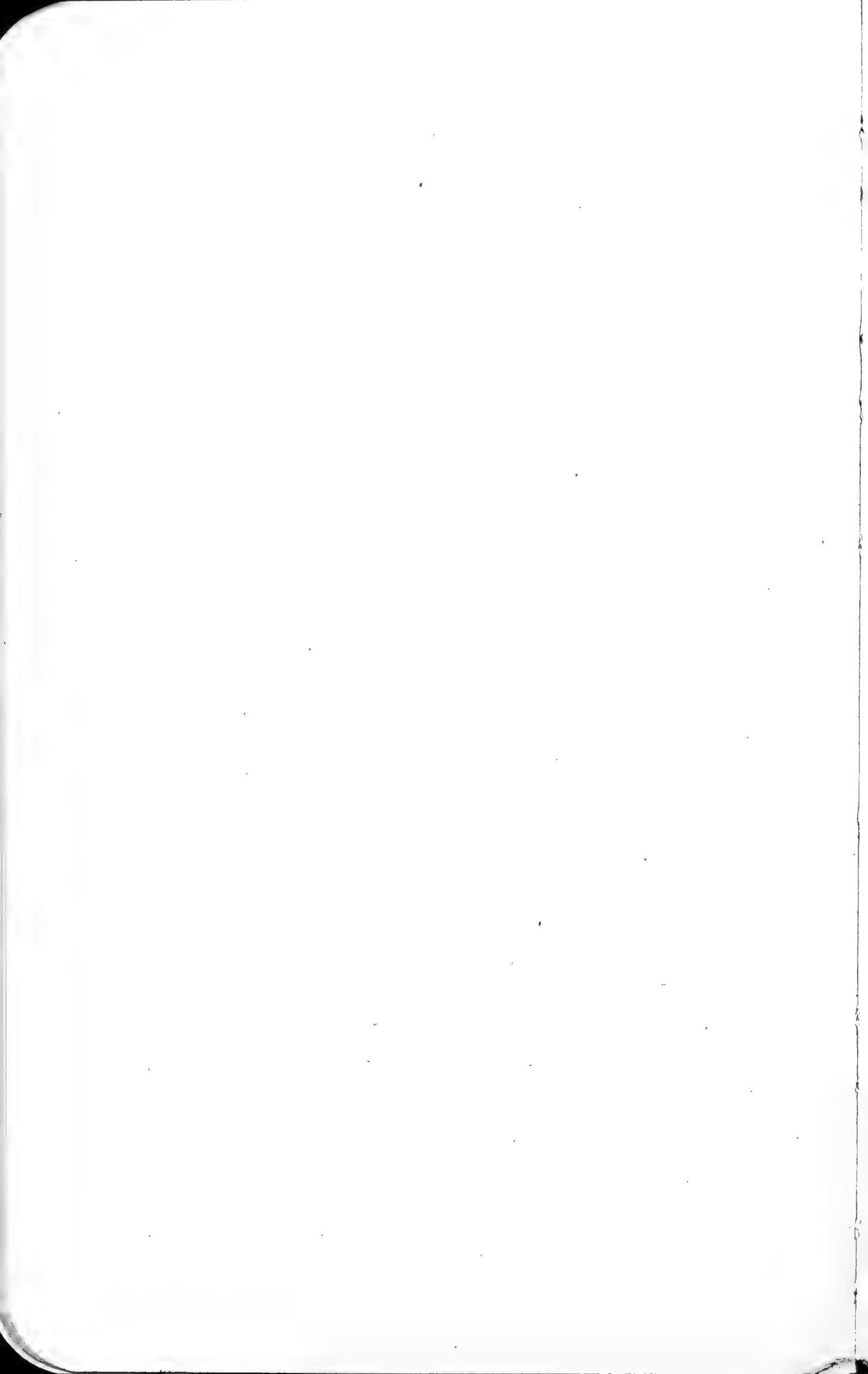
In the afternoon I went to Agate with Mr. McCaffrey and two men Harold Cook. We made arrangements for work at the quarry.

Sunday, July 10

Went to Agate in the morning. Established camp in the afternoon. Also went to the quarry with Harold Cook and looked over the situation.

Monday, July 12.

Started work at the quarry. Mr. Lloyd and House returned to Scottsbluff.



Poyer. Harold took
inspected our work in the
morning and gave us some
advice.

See Field Numbers 1-2.

Friday, July 15

Work at quarry. Reached
the Cow Poyer in late
afternoon, and uncovered a
perfect radius-ulna of
Moropus. Discovered by Mr.
Lloyd.

Saturday, July 16.

Worked at quarry in
morning. Uncovered more bones.
Howard, Page, Lloyd & Howe
went to ~~Switzer~~ Whiff in the
afternoon, to get supplies, etc.
I stayed in camp - conducted
a C.C.C. gang to the quarry,
and then spent the day.

afternoon, evening and night
at the ranch. A heavy
rain in the afternoon and at
night.

Sunday, July 17.

Spent most of the day
at the ranch. Went to
camp in the morning - and
went to the quarry to see
how the slab had gotten
through the storm.
Everything in good
shape.

John came - Both from
Scotts Bluff Saturday night
and spent all day
Sunday in camp.

The other three arrived
at the ranch in the
afternoon, from Scotts Bluff.
Looking at the Carnegie
museum reports, we found

+ both the molars which
discovered on Friday and
attributed to Microtus
is actually Diphyus!!

Monday, July 18.

Worked all day in the
quarry, exposing the
uppermost bones. Among
other things, found a
Dicatharion skull,
Peromyscus tooth and
Synaptomys (?) molar. This
last needs careful
identification. Many
limb bones and other
skull elements.

Tuesday, July 19

Quarry work all day.
Exposing still more of the

upper level of the bone layer

Wednesday, July 20

Worked in quarry exposing
more of bone layer. Visitors
in morning and afternoon
among them Mr. Green
of Scottsbluff and his
daughter Lucetta.

They stayed for
supper, after which Dr.
Howard left with them
for Scottsbluff. He and
Mr. Green to spend
two days together in the
vicinity of Hornet Rock,
inspecting some caves
in which artifacts have
been found.

Thursday, July 21

Mr. Lloyd Page and I
went to Cornsford where we
~~met~~ Schultz and his
party. Spent the day
with Schultz, looking
over the Cligoum section
in northwestern Nebraska.
Also the succession of
Coring, Mouse Creek and
Horison in the canyon
near Fort Robinson.

Stopped at the ranch
on the way back to camp
and had a talk with
Harold Cook as to
best methods for
continuing on a log.
A visit from the Cooks
in the evening.

Friday July 22.

Worked all day in quarry.

Started from the road
left and found a number
of fossil specimens in the
process - notably a lower
part of Dicranolites.

Saturday, July 23.

Quarry work in morning.
University of Chicago crowd
appeared late in the
morning for a visit. -
Olson and Paul Miller in
the group. Had lunch
together. To town in the
afternoon for supplies.

Sunday - July 24

In camp all day, many
visitors in the afternoon, to
see the quarry. To the ranch in
the evening for a visit with
Ergerson, Wade and Dratney
and the "North Party" crowd.

Monday - July 25

Quarry - work on trencher.

Tuesday - July 26

Quarry - work on trencher

Wednesday - July 27

Quarry - work on trencher

~~Thursday - July 28~~

~~Took the day off and
went to Clayville to
see the rocks.~~

~~Friday~~

~~Stayed all night~~

Thursday - July 28

Quarry work all day -
trencher.

Friday - July 29

Took the day off and
went to Cherryvale to see
the roller. Back to
Torrington for the night.

Saturday - July 30

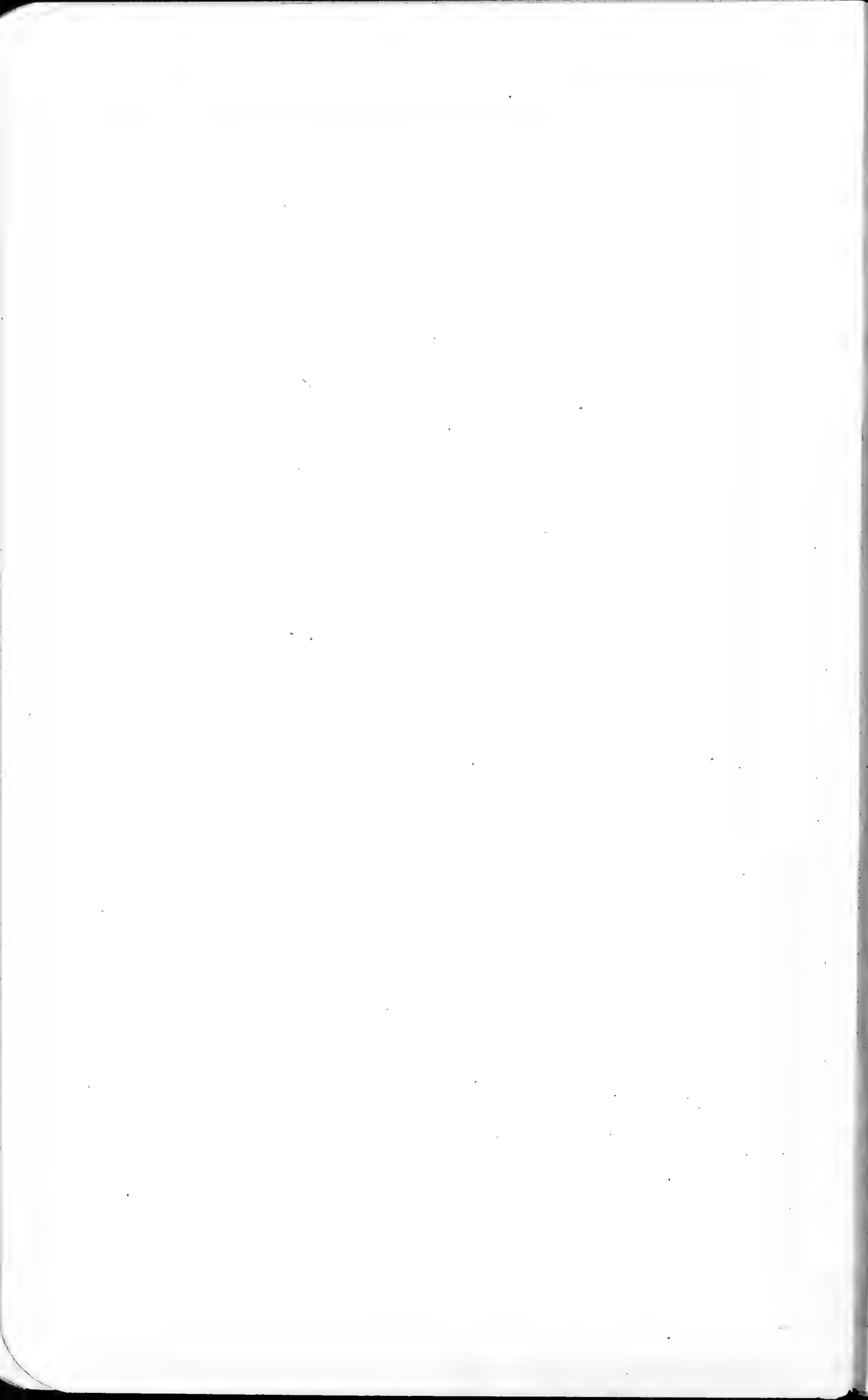
Spent the morning
at Torrington, looking
at the Howard quarry.

Scottsbluff in the
afternoon, shopping. Dinner
with the Grooms and
back to town late.

Telegram waiting,
telling of Perkins' arrival
in Scottsbluff.

Sunday - July 31

Drove to Scottsbluff
to get Perkins while
the others worked in the
quarry.



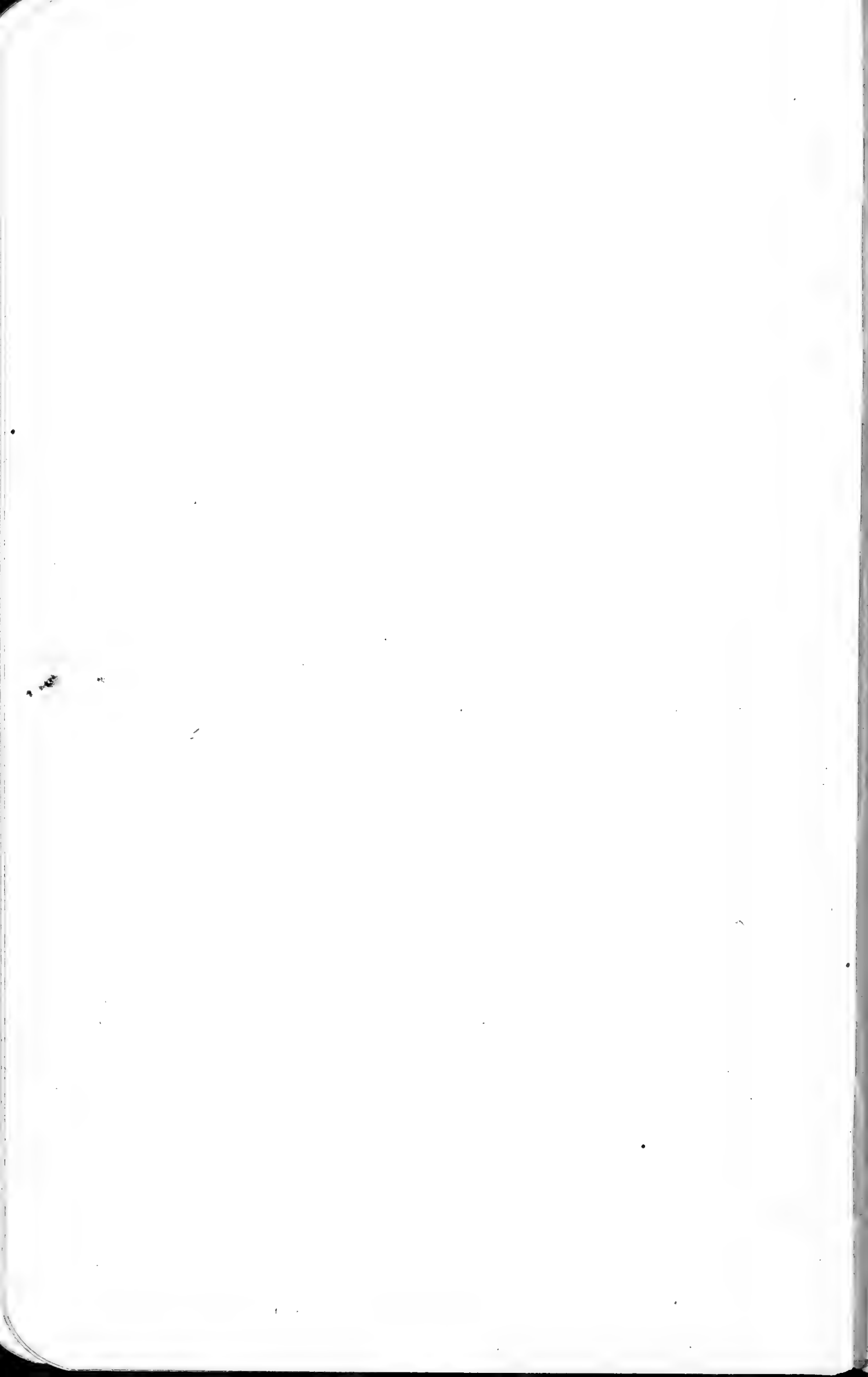
Monday - August 1

Quarry work all day.
Trencher, Dr. Bohlen
also worked on the hill,
collecting some specimens.
I left in afternoon, and
spent the afternoon in
camp.

Tuesday - August 2

Too windy to work in
quarry. Went with Drs.
Howard and Bohlen to look
at the Stensbury quarry
in the morning. Prospected
it but decided it probably
would not be possible to
work it this year.

In afternoon went to
the Hat Creek basin
to see the Cligoun.
Found some typical badland
work to Dr. Bohlen's great
delight.



Wednesday - August 3.

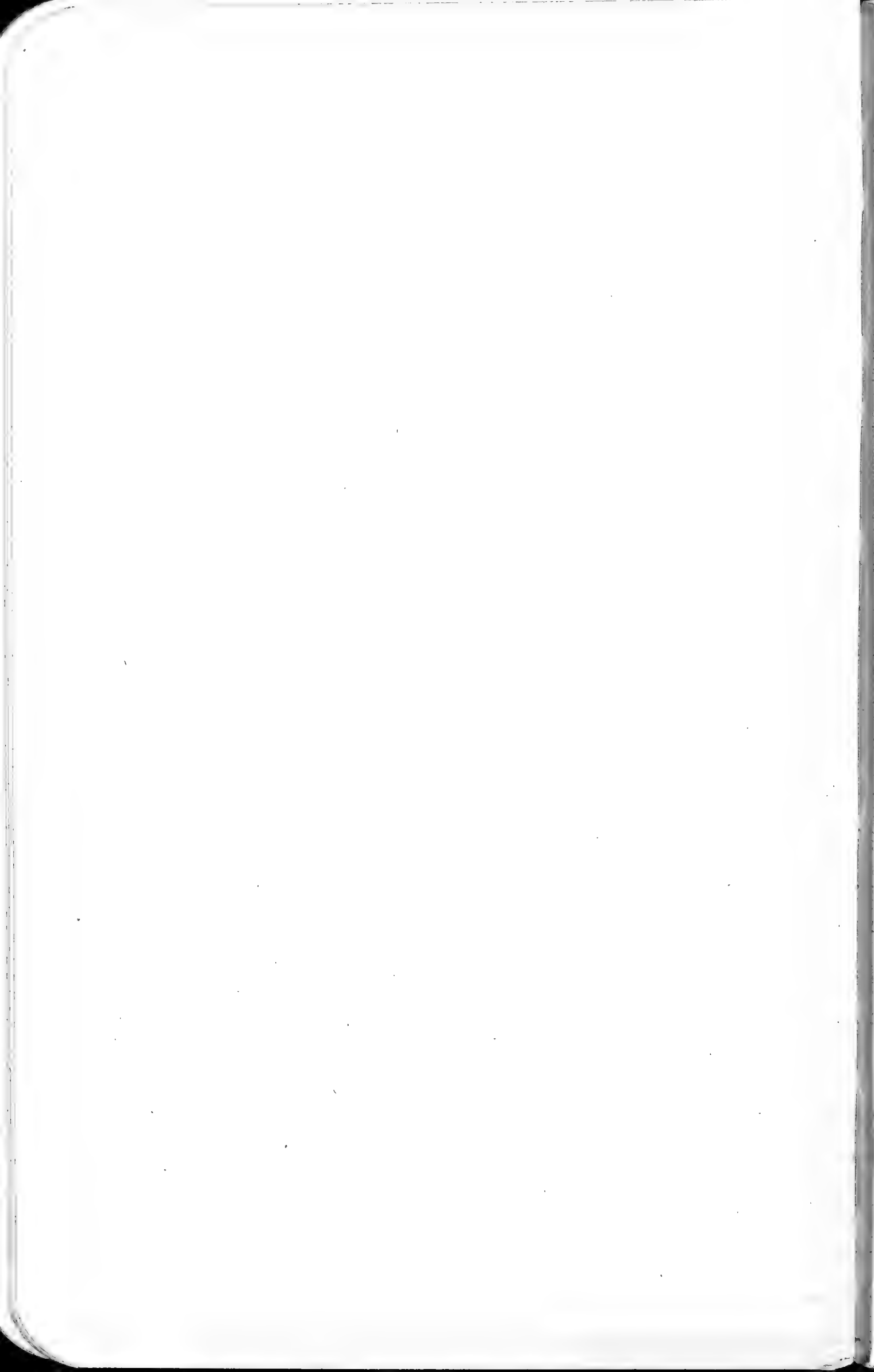
Worked in quarry in morning - trenches. In afternoon drove to the town locality of the Sheep Creek - Snake Creek, under the fine dome of Howard Peak.

Said Mr. Trishlin good-bye and went to the quarry, where John & I had worked all afternoon.

Thursday - August 4

Worked in quarry in morning - trenches. We are getting near to the end of the trenching.

A high wind in the afternoon kept us back to further work.



Friday - August 5

Quarry work - trenches.

Saturday - August 6

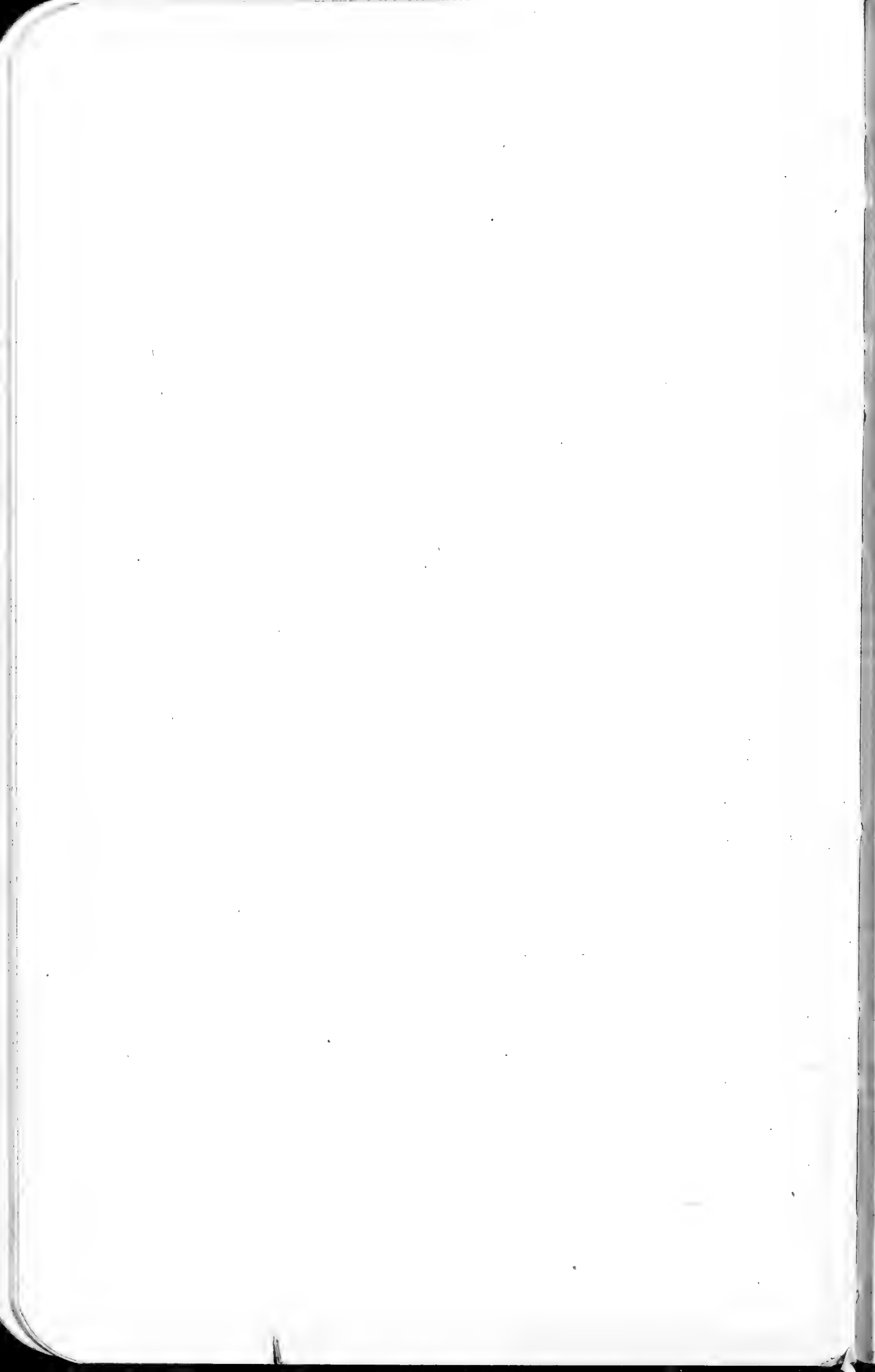
Quarry work in morning - trenches. The others went into Scott's bluff in the afternoon, while I stayed and worked at the quarry. High winds made the work difficult.

John came back late with supplies. Dr. Howard and Ned Poze stayed in town overnight.

Sunday - August 7

Worked in quarry in morning. Dr. Howard and Poze arrived in the late morning.

John and I went to the ranch for lunch and the afternoon while the others continued on.



quarry work. They joined us
at our ranch for the evening
meal, and an enjoyable
evening with the Quakers.

Monday - August 8.

Quarry work. Completing
trucks, and began underpinning.

Tuesday - August 9

Quarry. Trucks completed.
Worked in underpinning and
made fair progress.

Wednesday - August 10

Quarry. Underpinning -
making holes for supporting
timbers.

Thursday - August 11

Quarry. Underpinning
and washing holes.

Friday - August 12.
Plastered slab.

Saturday, August 13
Spent the day in town,
purchasing necessary supplies
and the like!

Sunday, August 14
Undercutting slab.

Monday, August 15.
Undercutting slab.

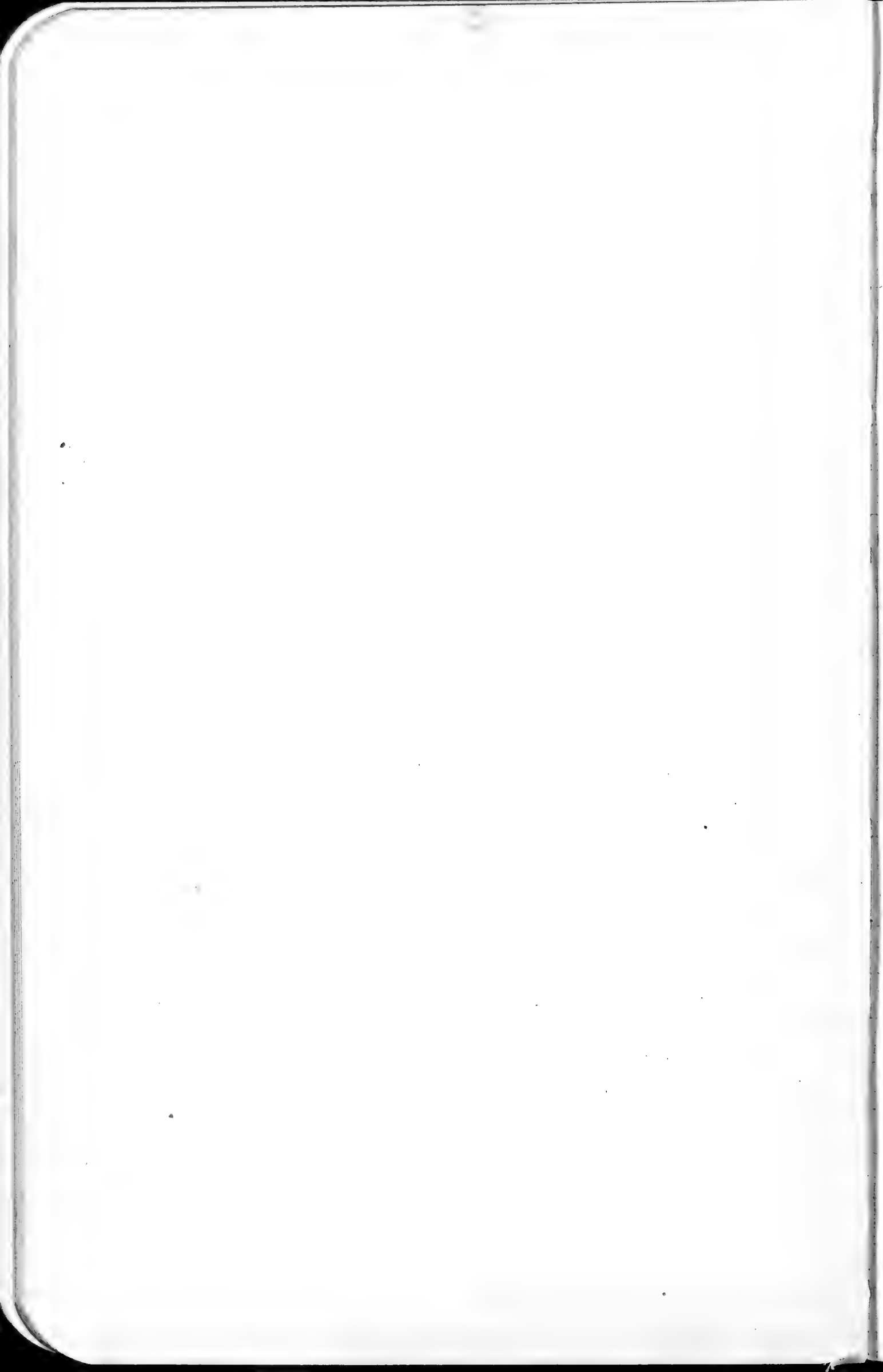
Tuesday, August 16
Undercutting slab.

Wednesday, August 17
Undercutting slab
Building cracks & plastering

Thursday, August 18
~~Undercutting~~ slab
Plastering and fitting
crotch.

Friday, August 19.
Removed slabs. This
was a big job, and occupied
our time from six in the
morning until nearly nine
~~at night~~ The work
was carried out largely
by two tractors, sent out
by Mr. A.C. Smith, with
our aid.

But after working hard
all day we finally got
the slab out on the
truck with no damage.
The tractors stayed all
night at camp, planning
to drive in by daylight.



Saturday, August 20

The slab went in to
Scottsbluff by truck, which
we broke camp.

Dr. Howard and I went
in, during the middle of
the morning, and spent
our time in town
supervising the loading of
the slab onto the freight
car, paying bills and
winning up our accounts.

The slab went into
the car without accident.

Al and John came
in after lunch with the
truck and unloaded the
remainder of the freight.
Then we turned the truck
back to Scottsbluff.

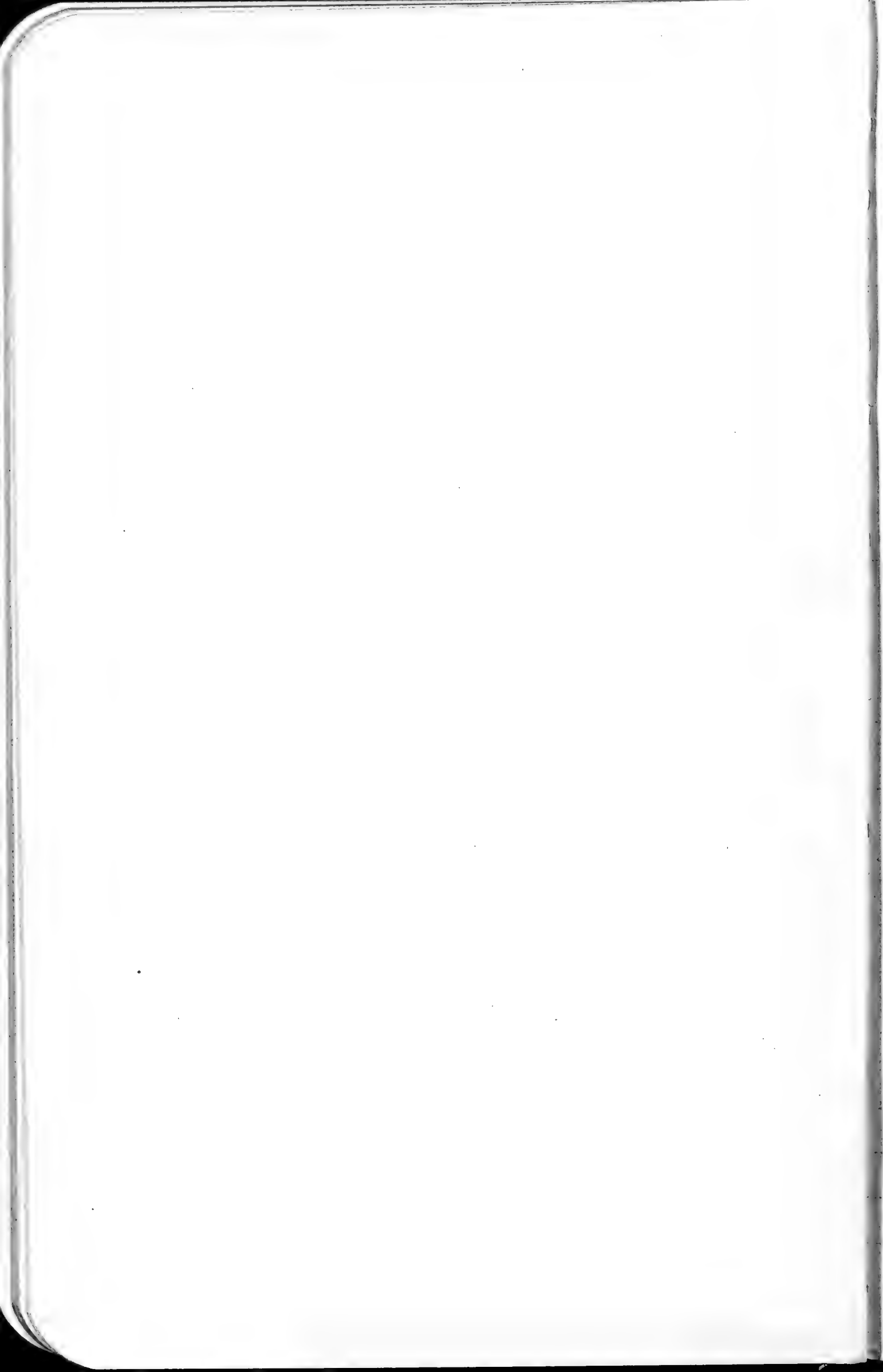
Al and I just
caught the afternoon train
out of Cheyenne.

Dr. Howard stayed on
for a day, after which he

intend to drive west.

We settled our accounts
with John Horn for his
complete satisfaction.

Thus ended the trip -
successfully.



Mammals seen on Trip

Mephitis mesomelas varians (Gray)
Long tailed skunk

Canis nebracensis nebracensis Merriam
Nebraska coyote

Perognathus flavescens flavescens (Merriam)
Plains pocket mouse

Dipodomys
Kangaroo rat (species?)

Peromyscus leucopus aridulus Osgood
White-footed mouse

Neotoma floridana baileyi (Merriam)
Pack rat

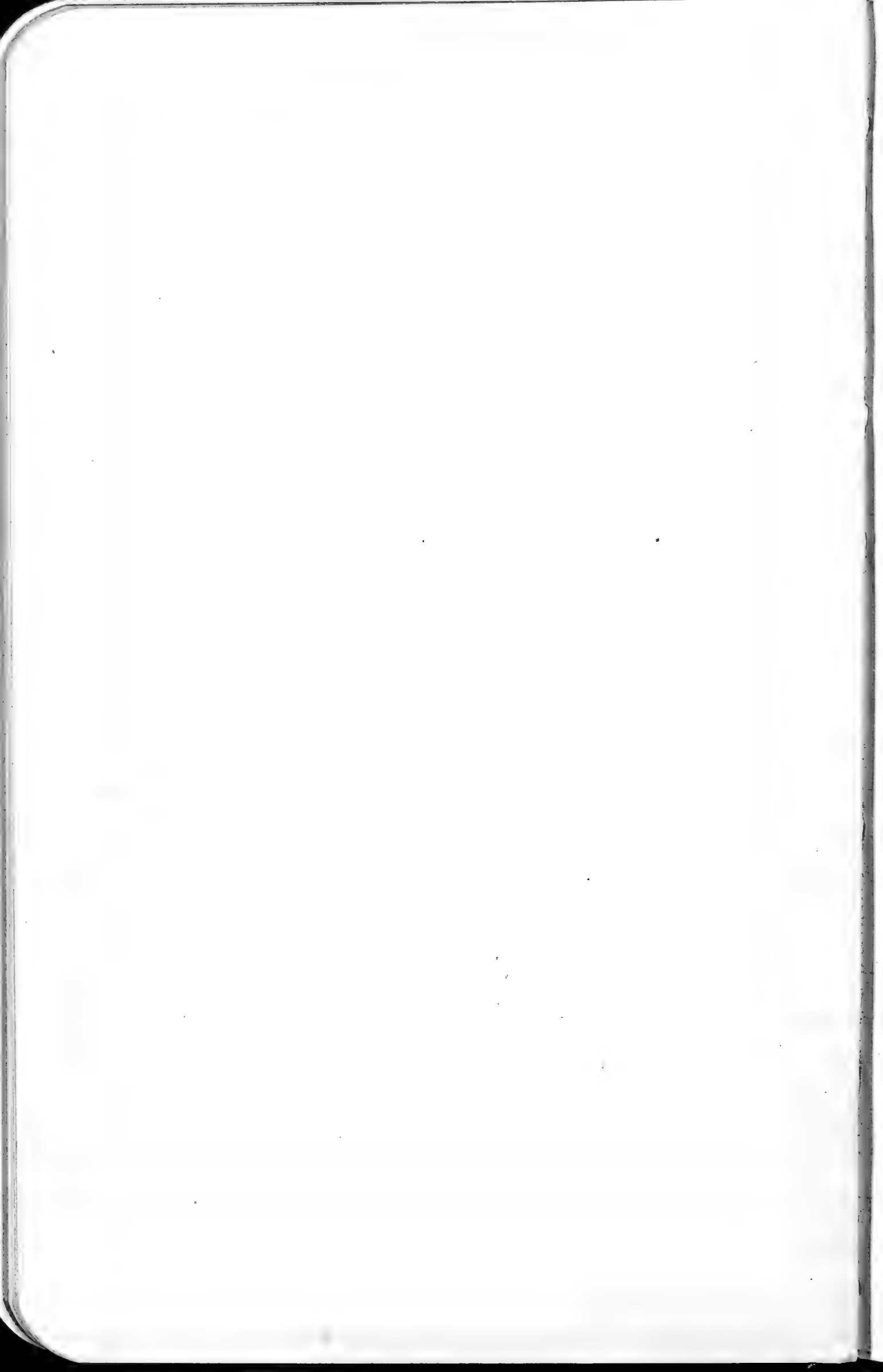
Erethizon epixanthum bruneri Swenk
Nebraska yellow-haired porcupine

Lepus californicus melanotis (Mearns)
Plains jack rabbit

(Sylvilagus floridanus similis Nelson)
Nebraska cottontail

Sylvilagus auduboni baileyi (Merriam)
Wyoming cottontail. { This species
definitely present

Antilocapra americana americana (Ord)
Pronghorn



1938

FIELD NUMBERS

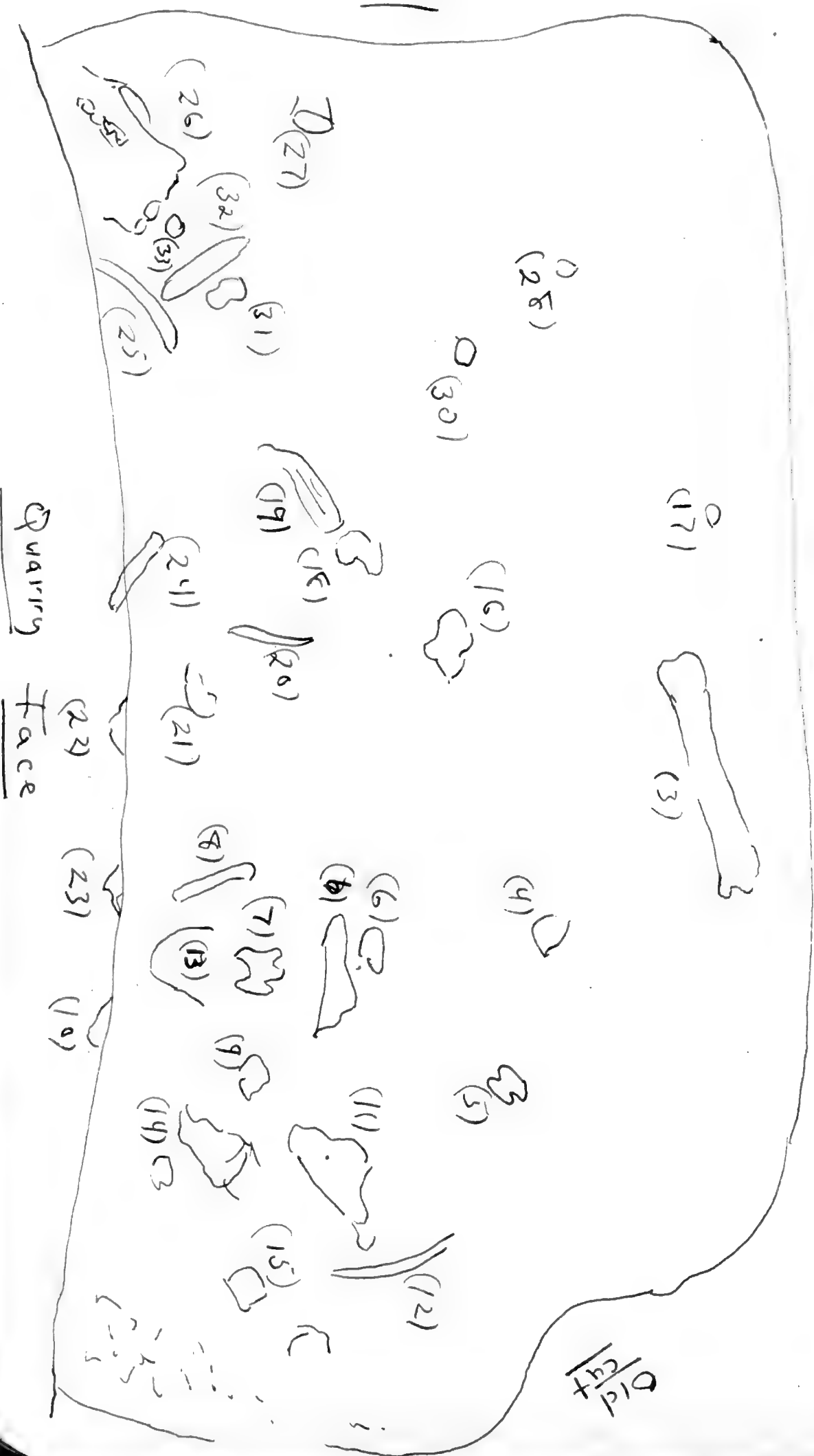
- (1) Crocodilian tooth.
Lower Miocene; Harrison form,
3'6" above top of bone-
layer. Gate Quarry.
- (2) Various fragments.
Horizon & Locality as in (1).
About 1' above top of
bone-layer.

The following numbers are
of specimens from the topmost
level of the bone layer.
It was necessary to remove
many of them in order to
work to the bone layer
itself. See map.

- (3) Dinotyrus - radius-ulna
- (4) Bone fragment
- (5) Diceratherium - astragalus

Cliff

Cliff



(6) Limb bone fragment

(7) Moropus - lower tooth

(8) Diceratherium (?) metapodial

(9) - Vertebra

(10) - Diceratherium (?) pelvis of
immature animal.

(11) Diceratherium - femur

(12) Diceratherium - rib.

(13) Large ilium - (Moropus?)

(14) Broken ulna(?)

(15) Vertebra

(16) ~~Calcaneum~~ ulna

(17) . Artiodactyl / upper molar

A	B	C	D	E
F	G	H	I	J
K	L	M	N	O
P	Q	R	S	T

(18) Monoclonus phalange

(19) first rib.

(20) Diceratherium lower tusk

(21) Tooth fragment

(22)

(23) Jaw?

(24) Metapodial

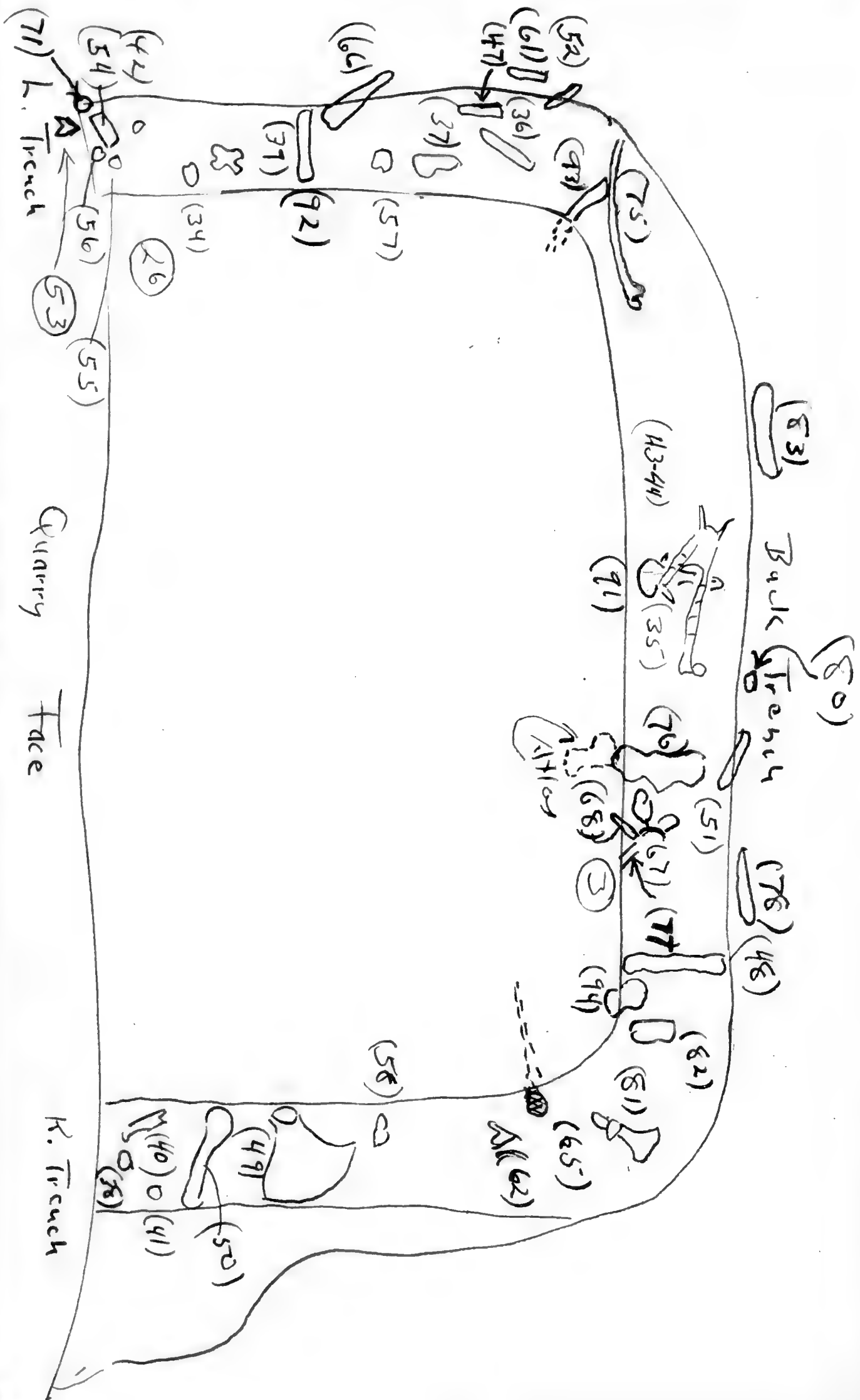
(25) Rib

(26) Diceratherium - skull

(27) Tibia

(28) Tooth fragment

(29) Miscellaneous fragments



(30) Diceratherium - upper molar

(31) Dinomyx - astragalus

(32) Limb Bone

(33) Diceratherium - upper molar

(34) Diceratherium - upper molar
L. trench.

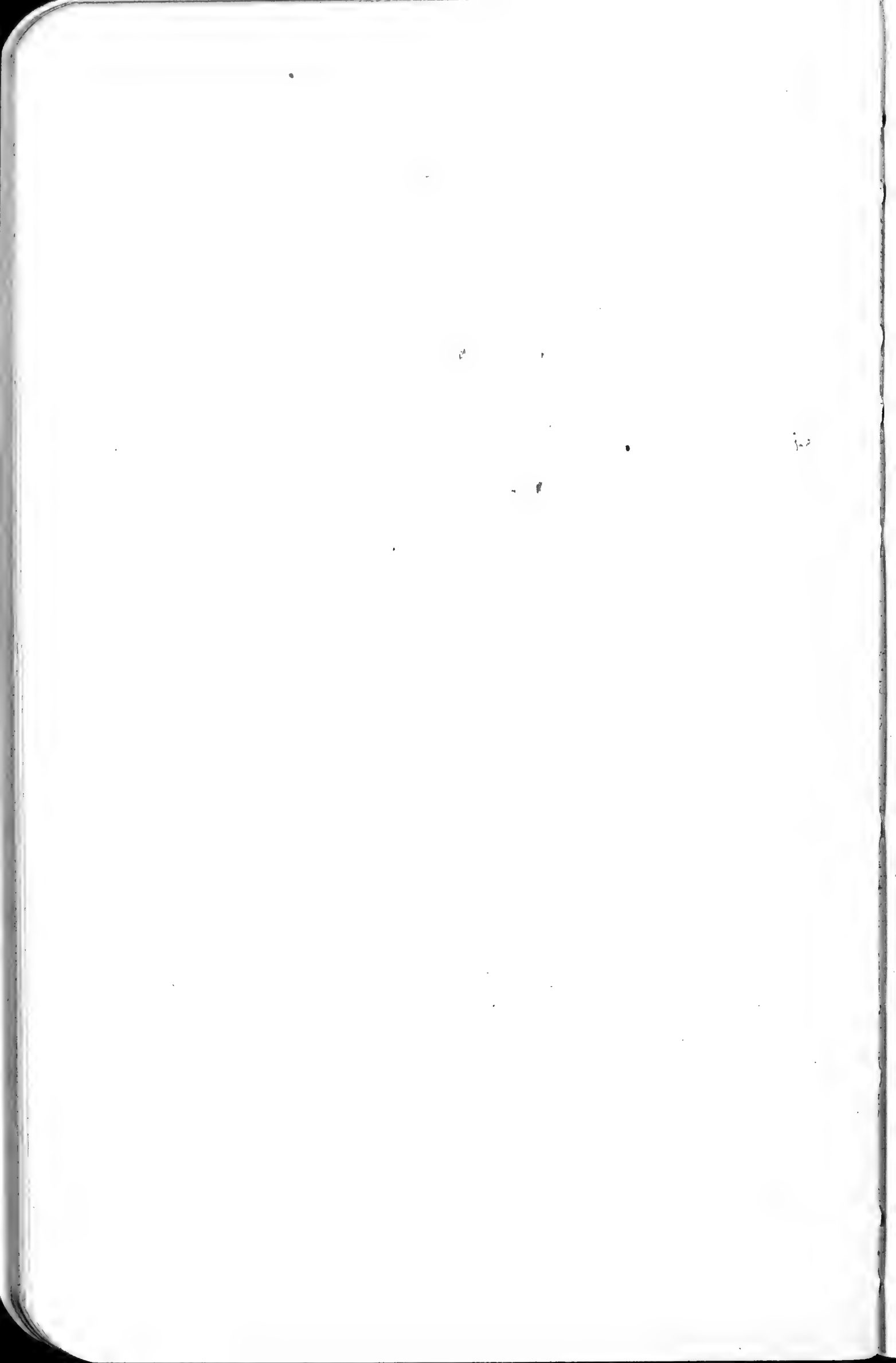
(35) Diceratherium - mandible.
B. trench

(36) Moropus - metatarsal
L. trench

(37) Dinomyx - calcaneum
L. trench

(38) Diceratherium - left upper pm.
R. trench

(39) Dinomyx - astragalus
L. trench



- (40) Moropus (?) - Limb bone
R. trench
- (41) Dicrathidium - upper molar
R. trench
- (42) Dicrathidium - upper prem.
L. trench
- (43) Moropus (?) molar, upper
Back trench
- (44) Dicrathidium - upper molar
Back trench
- (45) Two vertebrae -
L. trench
- (46) Miscellaneous bones
L, R, & Back trenches
- (47) Moropus (?) - metapodial
L. trench

- (48) Dicrathidium - tibia
Back trench, at distal
end of Dinochyrus radius-ulna.
- (49) Dicrathidium - pelvis
R. trench
- (50) Dicrathidium - femur
R. trench
- (51) Dicrathidium radius
Back trench
- (52) Dicrathidium - metacarpal
L. trench
- (53) Dinochyrus - (over) premolar
L. trench
- (54) Dicrathidium - frag. of mandible
L. trench
- (55) two premolars
L. trench

(56) Dicrantherium - upper 3rd molar
L. trench.

(57) Monopus - milk molar (upper)
L. trench

(58) Monopus - ectoloph of molar
R. trench

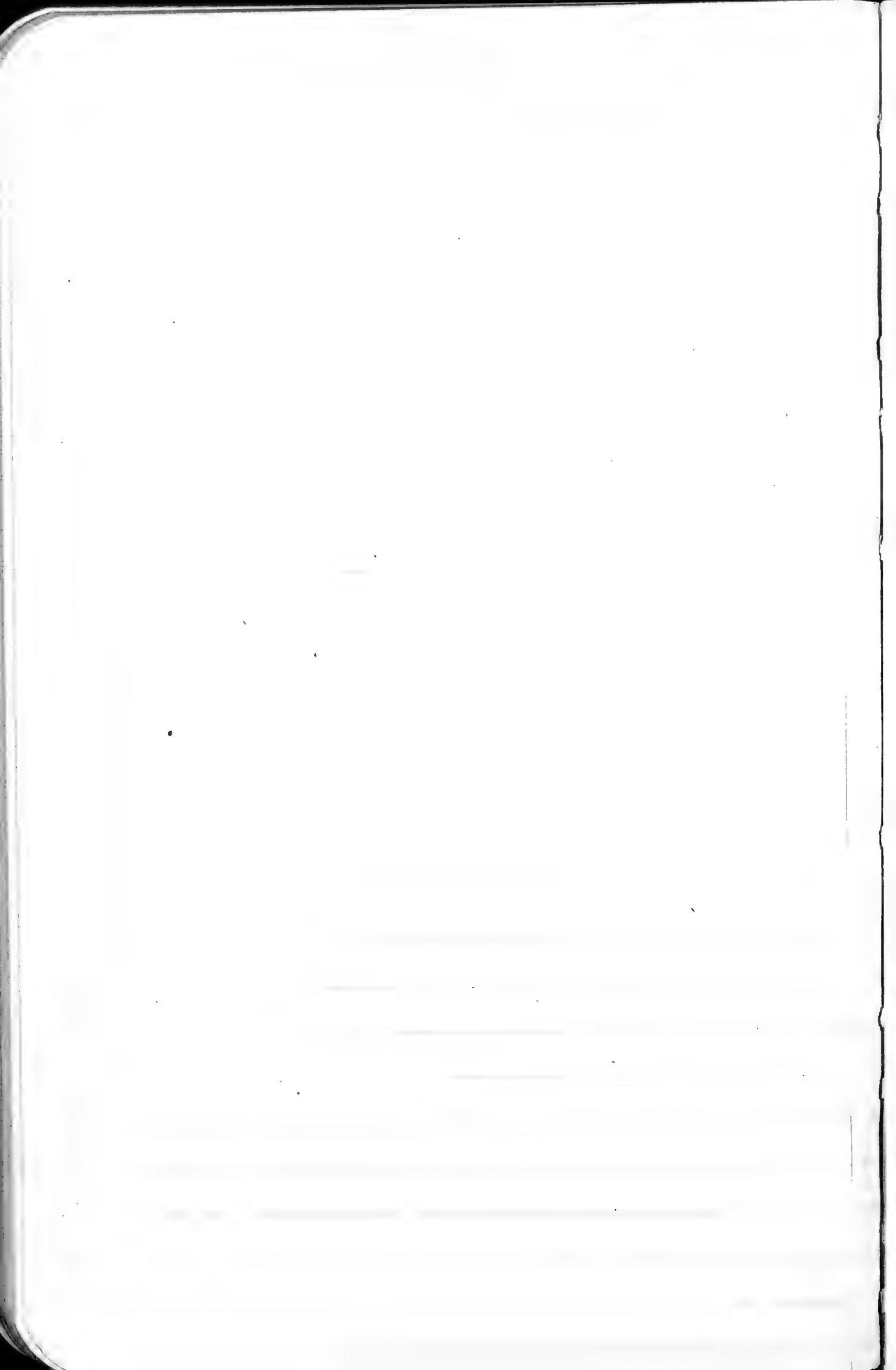
(59) Dicrantherium - various teeth
all trenches

(60) Monopus - pholous.
L. trench

(61) Monopus metatarsal
L. trench

(62) Dicranus 3rd molar
R. trench

(63) Dicrantherium 1st molar
L. trench



(64) Dicranium teeth
various lengths,
(includes minor)

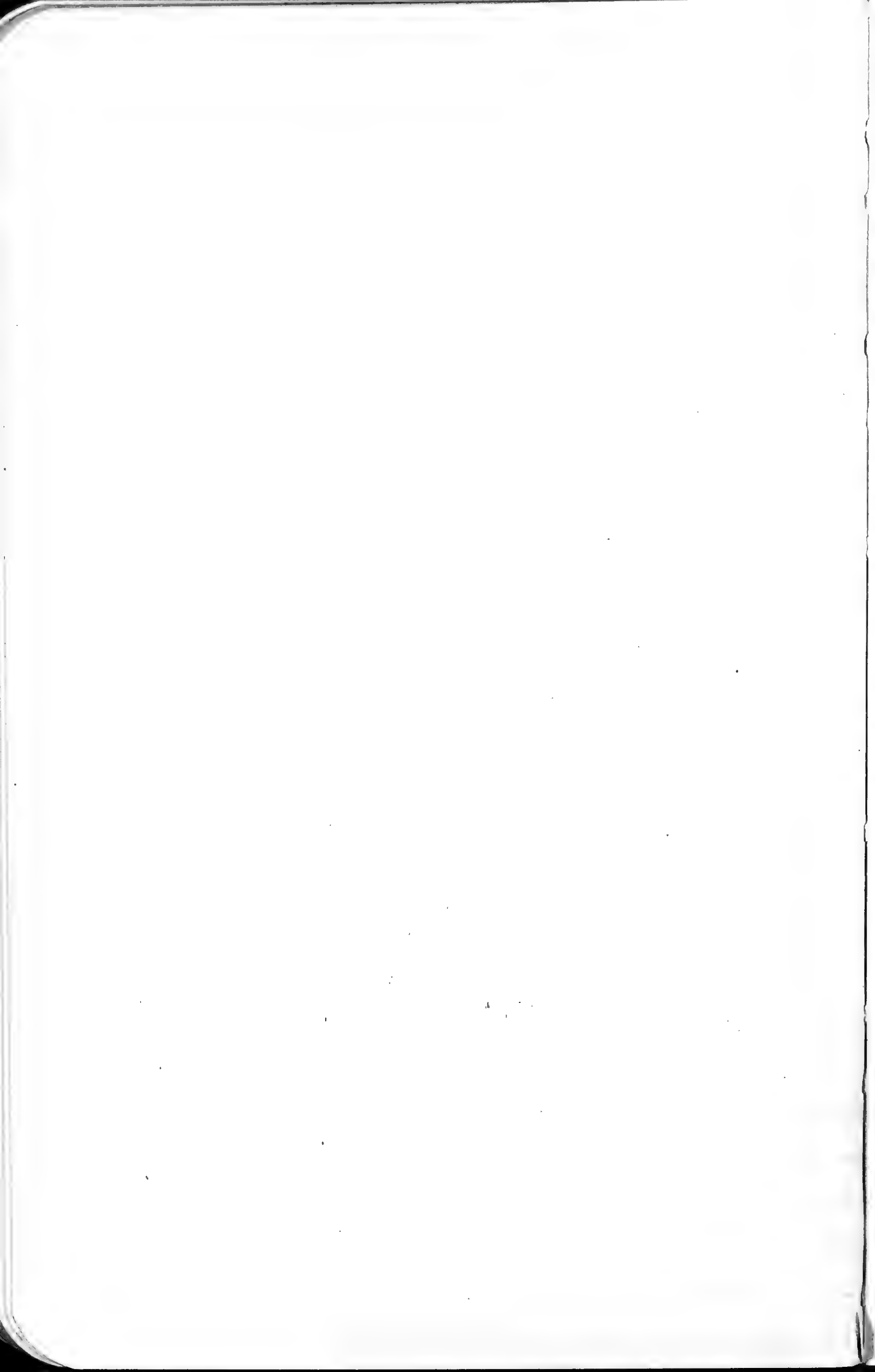
(65) Olecranon
R. trench.

Two olecranon fits on
the ulna protruding from
the glub, as shown. To be
fitted back when the
glub is prepared.

(66) Dicranium lower
L. trench - opposite (27)

(67) Dicranium - distal
end of lower.
Back trench

(68) Dicranium - lateral
metapodial
Back trench - at distal
end of ~~upper~~ Dinovyr
rod - ulna



(69) Dicrantherium - upper and
lower cheek teeth.
L. and R. tranches.

(70) Dicrantherium - in inner
L. tranche.

(71) Monoporus - pharyngeal.
L. tranche

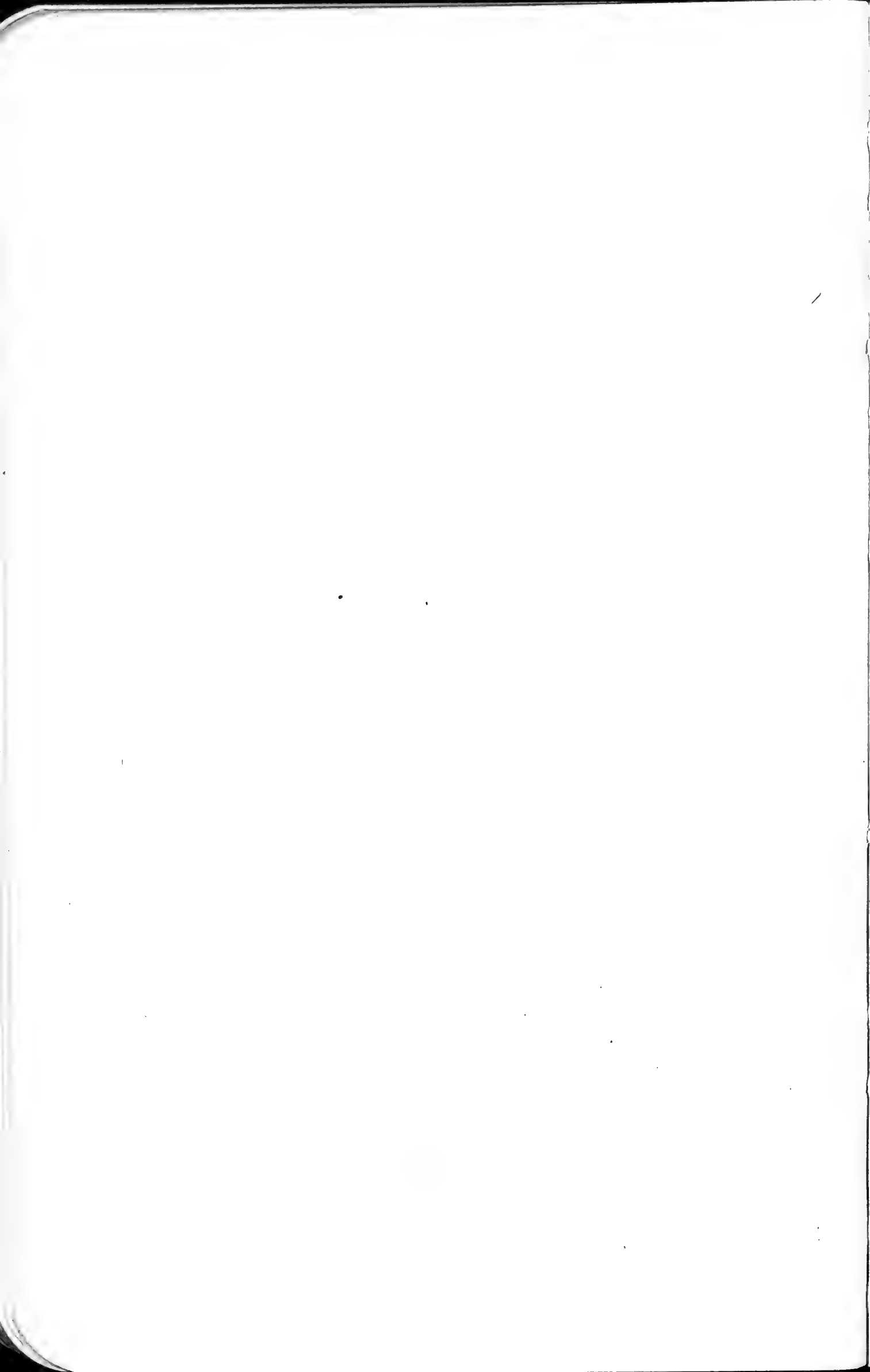
(72) Monoporus - osteogaster
Locative unknown.

(73) Dicrantherium(?) or equid(?)
Proximal end of lateral
metapodial

(74) Monoporus(?) - milk molar(?)
L. tranche.

(75) Large rib.
Back tranche

(76) Cervical vertebrae, in series.
Then ended above the atlas
at the distal end of Diplotherium leg.



(77) Diceratherium - ulua.
Back trench. Cut in
two at edge of slab. This
row confirms under the
middle of the Kinohys
row - ulua.

(78) Diceratherium - rodion.
Back trench.

(79) Diceratherium - Hall teeth
Back trench

(80) Dicrohyes - pholox
Back trench

(81) Diceratherium - pelvis
R. trench

(82) Diceratherium - mandible
with milk teeth.
Open carefully! see Dr. Howard
Back trench

(83) Moropus (?) - portion of limb bone
Back trench.

(84) Dicrathidium - teeth
All trenches.
(including incisor)

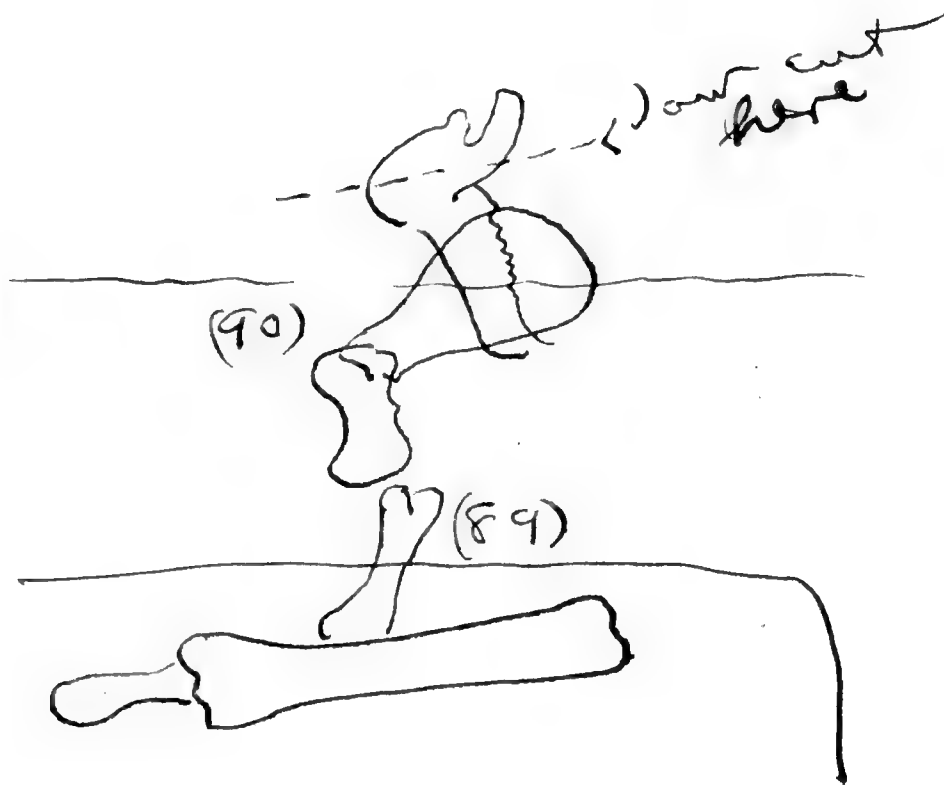
(85) Moropus - phalanges
R. and L. trenches.

(86) Moropus - fragment of tooth
L. trench.

(87) Canid - upper molar
L. trench

(88) Small ulna
Back trench.

(89) Dicrathidium - humerus
Back trench - proximal end
running beneath middle
of Dinobird radius-ulna



(90) Dicrathium - atlas,
scapula, mandible
Back trench - extending
from Dinohyus bone to
wall

(91) Dinohyus - vertebra
Back trench

(92) Dicrathium - tibia
L. trench

(93) End of large rib
Back trench corner of
slab.

(Cut at edge of slab -
proximal end in slab)

(94) Atlas.
Dorsal trench, below
Dinohyus radius-ulna
(Cut at edge of
slab - one wing
still in slab)

(95) Dicrantherium - teeth
all trench ch.

(96) Monopus - phalanges,
including one ungual.
all trench ch.

(97) Monopus - calcaneum
Balli trench, near Dinobryus
bone.

(98) (?)
Back trench

(99) Monopus - lower tooth
L. trench

(100) Monopus - upper and
lower milk molars.
also on incisor (this species?)
L. trench.

(101) Monopus - phalanges
All trench ch. (Mostly left)

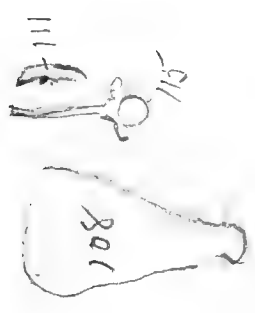
(102) Dicranotum - tuft
L. + Back from ch.

(103) Dicranotum - 3 vertebrae
two articulated.
L. trench.

(104) Miscellaneous.
L. trench.

(105) Mosses - lower water
Back trench

Long form



109

112

113

114



P. 1 - 27

107 1/2

108 1/2

109 Section

110 1/2

111 Carinae Tooth

112

113 Atlas

114 Atlas

115 Vert.

116 Pelvic

117 Vert.

1

119

120

121

123 Vert

124

125 Vert

126 Cervical Vert.

127 Cervical Vert

128 Vert. Cervical

129 Vert.

130 Vert.

131. *Scilla*

132. *Scilla* - *Scilla*

133. *Scilla*

134. *Scilla* - *Scilla*

135. *Scilla*

